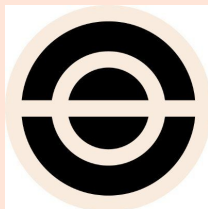




UniGuard

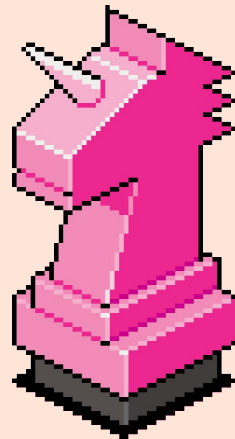
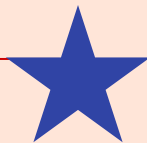


Risk management and Insurance mechanisms for Uniswap hooks



About

An insurance system for Uniswap V4 hooks that combines UNI staking governance, AVS-powered monitoring, and zero-knowledge proofs for victim compensation by Brevis.



Motivation

- Support hook innovation while protecting users
- Create decentralized security validation through UNI staking
- Ensure fair and verifiable compensation for affected users



Triple-Layer Protection System



UNI Staking

Decentralized risk assessment through UNI token staking provides economic security and community governance



AVS Monitoring

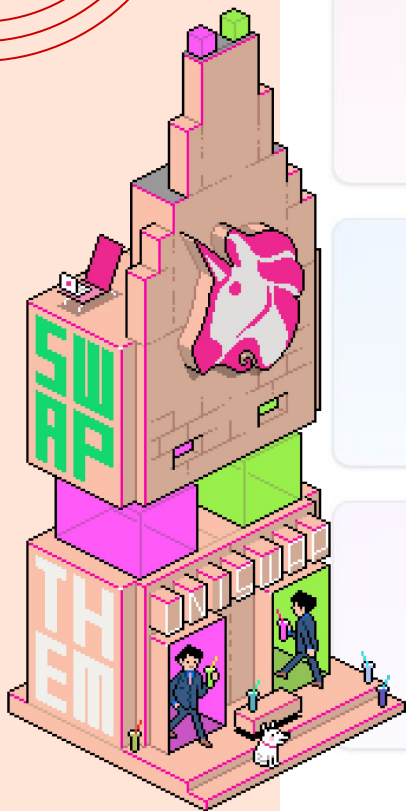
Autonomous monitoring system continuously evaluates hook behavior for real-time risk detection



Brevis ZK Proof

Zero-knowledge proof system ensures secure and verifiable victim compensation claims

A comprehensive security framework for Uniswap V4 hooks



Hook Registration Process

Securing Your Hook with Insurance Protection



1. Submit Hook

Developer deploys hook and registers with HookRegistry

Example: [LimitOrder.sol](#)



2. Insurance Deposit

Provide USDC deposit to InsuranceVault

Minimum: 10,000 USDC



3. UNI Staking

Community stakes UNI tokens to validate hook

Minimum per staker: 1,000 UNI



4. Hook Activation

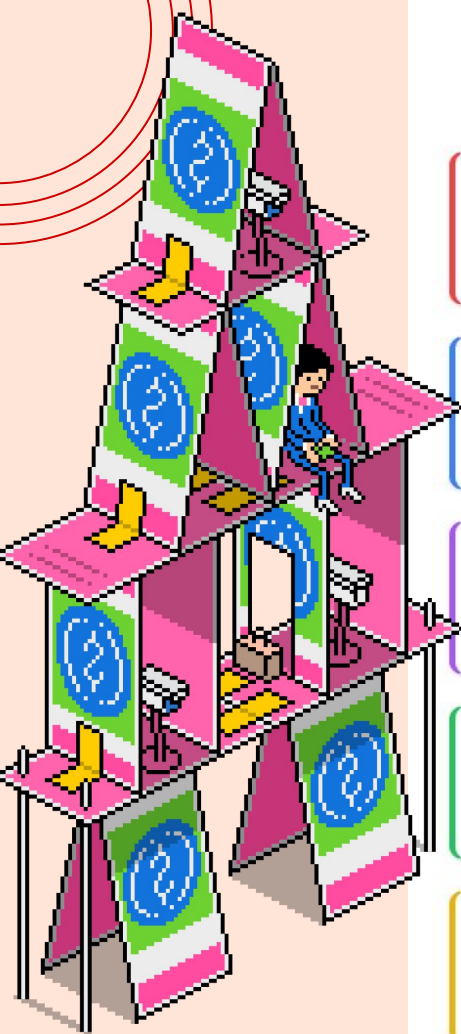
Hook becomes active with full protection

Monitored by AVS + Community



Protection System in Action

Example: Protecting Users from a Compromised Hook



1. Incident Detection

AVS detects suspicious activity in LimitOrder hook:

- Unusual order manipulation detected
- Risk score increases to 80/100



2. Automatic Protection

System responds immediately:

- Hook is automatically paused
- Further interactions blocked



3. Governance Response

UNI stakers take action:

- Insolvency proposal created
- Community votes to process compensation



4. Victim Verification

Brevis processes claims:

- Users submit proof of loss
- ZK proofs verify legitimate claims

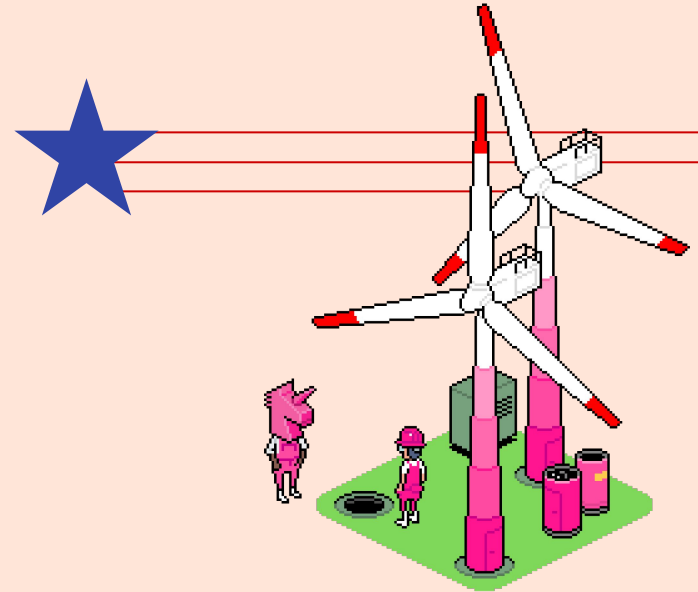


5. Compensation

Verified victims receive compensation:

- USDC from insurance pool distributed
- Individual claims processed securely

UniGuard is Secure Foundation for Hook Innovation



Combining UNI governance, AVS monitoring, and Brevis ZK proofs
Community-driven security validation

Demo

